

# Warren Residential Build Out Analysis 2008

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## Introduction

This study, conducted in support of the Comprehensive Community Plan, estimates future residential development in Warren. The estimated potential number of dwelling units that could be built as-of-right is calculated based on existing zoning and using digital parcel data from the Warren Geographic Information System (GIS).

## Assumptions

1. Only residential development permitted as-of-right is considered. Single-family residential is permitted as-of-right. (Hence, multi-family and/or accessory dwelling units are not considered in the analysis).
2. No new development will occur on any protected open space lands (federal, state, town, land trust, ASRI, farms with purchased development rights), cemeteries and other exempt properties (churches, hospitals, schools, town, etc.). These lots are shown on Figure 1. (Farm Forest Open Space, or State Class Code `33` lots are only temporarily protected, unless protected by conservation easements and/or development right purchase, and therefore could be subject to further residential development).
3. All adjacent lots that are in same ownership that would be required to be merged if developed, under Section 32-82 of the Zoning Ordinance, will be merged.
4. The number of existing dwelling units per lots will be estimated using various information from the Assessor's database, including State Class Code (`01`/single-family, `02`/two-five family, etc.), main building design (`2` family, `3` family, colonial, etc), and for `03`/apartments using oblique aerial photography from [www.maps.live.com](http://www.maps.live.com). See Figure 2 for distribution of Existing Dwelling Units.
5. Existing lots split by two or more zoning districts (e.g., R10/R20 or R40/M) were considered. Existing dwelling units were applied only to the appropriate portion of the lot using buildout footprint data from the GIS and aerial photography.
6. The RIGIS Wetlands dataset (1995) was considered to be the best available town-wide wetlands information, hence were used to calculate the area on all lots that are ``Suitable for Development``, as per Section 32-76.1 of the Zoning Ordinance. (This Section generally specifies that areas not suitable for development shall include fresh and coastal wetlands and areas with slopes in excess of twenty-five

- (25) percent. Slopes in excess of twenty-five (25) percent were not present based on a review of the RIGIS Soils data). Wetlands are shown on Figure 1.
7. The potential number of additional lots that could be created by subdivision (as-of-right) was based on the minimum lot size within each zoning district and the land area suitable for development. The distribution of Additional Dwelling Units and Build Out is shown on Figure 3.
  8. Frontage considerations for potential new lots was made on the following bases, and the following formulae used to calculate Potential Lots, respectively:
    - a. If two lots could be created (that is, where the area suitable for development is less than three (3) times the minimum lot size) it was assumed that the existing lot would already have road frontage (and could be basically split):
 
$$\begin{aligned} &\text{Potential Lots (rounded down)} \\ &= \text{Area Suitable for Development} / \text{Minimum Lot Size} \end{aligned}$$
    - b. If, however, three or more lots could be created (that is, where the area suitable for development is more than three (3) times the minimum lot size) it was assumed that fifteen (15) percent of the land area suitable for development would be removed to allow for new roads:
 
$$\begin{aligned} &\text{Potential Lots (rounded down)} \\ &= (\text{Area Suitable for development} * 0.85) / \text{Minimum Lot Size} \end{aligned}$$
  9. All lots were considered to have road frontage, even though some lots are known to be land-locked.
  10. The impact of cluster development on R40, R20 and R10 was not considered.
  11. All new lots that could be created in the VB and W zoning districts will be split proportionately between residential and commercial (since both are permitted as-of-right). Hence the number of potential units would be halved on new residential lots.
  12. Within all other zoning districts (i.e., excluding those described in Assumption 9. above), we calculated the number of potential units to be equal to the number of potential lots (since all are single-family and require the same minimum lot area).
  13. If the number of existing units on each lot was equal or greater than the number of potential units then those lots are considered ``maxed out`` under this development scenario. Additional units would therefore be zero.

14. However, if the number of existing units on each lot is less than the number of potential units, then those lots are considered to have additional development potential. Additional units could be calculated. All Additional Dwelling Units are shown on Figure 3.
15. Within each zoning district the total number of units (Total Units) is the sum of the number of existing units (Existing Units) and number of additional units (Additional Units). All units are calculated on a lot-by-lot basis then summarized by zoning district and shown in Table 1 and Figure 4.
16. The average household size derived from the 2000 Census of Population and Housing was used to estimate the existing and projected populations.
17. The 2007 existing units across all zoning districts was estimated at 4,710 units (or 11,304 persons) using the Assessor's database (and 2000 Census -- see Assumption 14). This estimate is considered very reasonable; the 2000 Census estimated 4,977 units (or 11,945 persons) and RI Statewide Planning Program has projected a decline in total population to 11,328 persons as of July 1, 2005.
18. A separate buildout analysis conducted for the Tounisett Peninsula Greenway/R-40 Zoning District is provided as an attachment.

## Summary of Findings

The Build-out Analysis projected that an additional 1,415 single-family dwelling units could be developed as-of-right based on the land available for development and zoning in place in 2008. Under these build-out conditions, the total number of units would be 6,125 units. Based on the average household size of 2.4 persons, the town's population would increase by 30% (or 3,396 persons) resulting in a total population of 14,700 persons.

- In the R40 zoning district there are 116 existing lots that have the potential for creating 480 additional lots and 536 additional units. These additional units would more than double (106% increase) the number of units in that zone. **Of all new residential units in Warren it is estimated that 38% would be within R40.**
- **In the R20 zoning district there are five (5) existing lots that have the potential for an additional 68 units, or an increase of 46% of units in that zone.** However, the overall effect is < 5% of total new units in Warren.
- In the R10 zoning district there are 253 existing lots that have the potential for an additional 607 units, or an increase of 28% units in that zone. **Of all new residential units in Warren it is estimated that 43% would be within R10.**
- In the R6 zoning district there are 71 existing lots have the potential for an additional 147 units, or an increase of 14% of units in that zone. Of all new residential units in Warren approximately 10% would be within R6.
- The other zoning districts (**R15, R30, VB and W**) are projected to create a total of 50 new lots or 57 additional units. **Of all new residential units in Warren a total of 3% would be within the R15, R30, VB and W zones combined. These districts have little potential for new residential development under this scenario.** New development in these districts will primarily result from redevelopment, zoning relief, and/or consolidation of lots (and are not subject to this analysis).

**Table 1: Residential Buildout Projections by Zoning Districts, 2008**

<b>Zoning District</b>	<b>Total Acres</b>	<b>Existing Units</b>	<b>Additional Units</b>	<b>Total Units</b>
B	143	174	-	174
C	359	1	-	1
CI	32	-	-	-
FC	207	-	-	-
M	121	28	-	28
R6	165	1,133	147	1,280
R10	866	2,133	607	2,740
R15	46	64	18	82
R20	160	147	68	215
R30	78	23	1	24
R40	1,374	504	536	1,040
S	25	10	0	10
VB	51	442	19	461
W	20	51	19	70
Water, Roads, etc.	331	0	0	0
<b>Totals</b>	<b>3,976</b>	<b>4,710</b>	<b>1,415</b>	<b>6,125</b>

**Table 2: Projected New Residential Lots by Zoning District, 2008**

<b>Zoning District</b>	<b>Total Acres</b>	<b>Min. Lot Size (SF)</b>	<b>Total Existing Lots<sup>1</sup></b>	<b>Existing Lots With Potential Residential</b>	<b>Potential Add'l Lots</b>	<b>Percent Increase in New Lots</b>	<b>Percent of New Lots in Warren</b>
<b>R6</b>	165	6,000	747	71	109	15%	8%
<b>R10</b>	866	10,000	2,033	253	609	30%	46%
<b>R15</b>	46	15,000	85	7	13	15%	1%
<b>R20</b>	160	20,000	49	5	77	157%	6%
<b>R30</b>	78	30,000	23	1	1	4%	0%
<b>R40</b>	1,374	40,000	635	116	480	76%	36%
<b>VB</b>	51	10,000	309	24	19	6%	1%
<b>W</b>	20	10,000	75	22	17	23%	1%
<b>Totals</b>	<b>2,760</b>		<b>3,956</b>	<b>499</b>	<b>1,325</b>	<b>33%</b>	<b>100%</b>

Footnote: 1 Includes ``merged lots`` in total (see Assumption 3).

**Table 3: Projected New Residential Units by Zoning District, 2008**

<b>Zoning District</b>	<b>Total Acres</b>	<b>Min. Lot Area Per Unit (SF)</b>	<b>Existing Units</b>	<b>Add'l Units</b>	<b>Total Units</b>	<b>Percentage Increase in DU's</b>	<b>Percentage of New DU's In Warren</b>
<b>R6</b>	165	6,000	1,133	147	1,280	13%	10%
<b>R10</b>	866	10,000	2,133	607	2,740	28%	43%
<b>R15</b>	46	15,000	64	18	82	28%	1%
<b>R20</b>	160	20,000	147	68	215	46%	5%
<b>R30</b>	78	30,000	23	1	24	4%	0%
<b>R40</b>	1,374	40,000	504	536	1,040	106%	38%
<b>VB</b>	51	10,000	442	19	461	4%	1%
<b>W</b>	20	10,000	51	19	70	37%	1%
<b>Totals</b>	<b>2,760</b>		<b>4,497</b>	<b>1,415</b>	<b>5,913</b>	<b>31%</b>	<b>100%</b>

*Attachment -- Touisset Peninsula Greenway/R40 Zoning District*

**Major Findings**

- Under current zoning (R40) the *Touisset Peninsula Greenway* is approximately half developed, despite several large permanently protected farms and conservations areas.
- There are an estimated 384 existing dwelling units of which 95% (or 363 units) are single-family. There are just a total of nine (9) lots with more than one unit.
- There are 376 additional single-family dwelling units that could potentially be allowed as-of-right in this area.
- The total number of projected dwelling units in this area is 760 units. This represents 27% of all new residential development in Warren, and 70% of all additional units in the R40 zone.
- There are just 11 existing lots that will potentially generate 236 lots and an additional 216 units. Of these 11 subdivisions they could potentially range from a 12-lot to a 45-lot development.

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